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AUTHOR	Cunningham, Alisa Federico
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ABSTRACT

This report describes some economic development efforts of the 32 tribal colleges and universities in the United States and Canada. Although the data needed for a comprehensive analysis of the economic impact of tribal colleges are not available, the report argues that the colleges affect local community development on many levels. Specific data from national sources, as well as examples from the tribal colleges and the reservations on which they are located, are used to illustrate these effects. In the first section, background is provided on the economic circumstances of American Indian reservations and the potential for postsecondary institutions to help. The second section looks at the impacts of tribal colleges in particular, including both direct economic effects such as expenditures, and long-term effects such as the development of increased skill levels and employment in the local workforce, encouragement of small business and entrepreneurship, and improvement of land use and agricultural activities. Because the colleges are at different stages of growth and exist in distinct economic landscapes, the range of their contributions to local development vary widely. Nevertheless, the tribal colleges are vital components of the process of building a foundation for future growth on Indian reservations and are strongly contributing to the economies of this nation's most disadvantaged areas. (Contains 94 references.) (TD)

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Tribal College Contributions to Local Economic Development

Prepared by:
American Indian Higher Education Consortium
The Institute for Higher Education Policy

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a collaborative effort between the American Indian Higher Education Consortium
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For more information, please contact:

American Indian Higher Education Consortium
121 Oronoco Street
Alexandria, VA 22314
(703) 838-0400 / FAX (703) 838-0388
e-mail: aihec@aihec.org
website: http://www.aihec.org

The Institute for Higher Education Policy
1320 19th Street NW
Suite 400
Washington, DC 20036
(202) 861-8223 / FAX (202) 861-9307
e-mail: institute@ihep.com
website: http://www.ihep.com

American Indian College Fund
1111 Osage, Bldg. D
Suite 205-A
Denver, CO 80204
(303) 892-8312 / FAX (303) 572-0650
website: http://www.collegefund.org

Tribal College Contributions To Local Economic Development

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I. INTRODUCTION

"With determination, many Native Americans are working to rekindle lost cultural values, restore a sense of community, and find practical solutions to the needs of their tribal nations."
— Paul Boyer, 1997

Contributing to the economic development of American Indian reservations is an essential goal of American Indian Tribal Colleges and Universities, unique institutions that were created over the last three decades to respond to the higher education needs of American Indians, especially those living in geographically isolated areas.[1] Tribal Colleges combine the preservation of tribal history, culture, and traditions with academic preparation, vocational training, and basic adult education. The development efforts of the 32 colleges in the United States and Canada are just one example of the vital roles they play in the local communities they serve. (See Figure One.)

In the past, most economic development initiatives on Indian reservations were devised and implemented by external agencies such as the federal government, and nearly all failed to bring about lasting change. To an extent, this failure was due to a lack of understanding of the structure of local economies, including inadequate infrastructure and widespread microenterprise. Within the context of the American Indian self-determination movement, tribes now are resolved to take control of their own economies (Boyer, 1997). "American Indian tribes today shoulder more responsibility for their economic development than at any other point in this century" (Tootle, 1997, p. 100). This responsibility represents an opportunity for real progress, because research suggests that self-determination is vital to the success of development initiatives. Successful development depends on tribal sovereignty, and most cases of sustained economic development on American Indian reservations have involved the leadership of the tribe in making economic decisions, rather than outsiders (Cornell and Kalt, 1990). In addition, a strong link exists between cultural values and successful economic development efforts. Tribal Colleges are leaders in the development process because they are autonomous American Indian institutions that strengthen and encourage the preservation and integration of cultural traditions such as consensus-building, thereby ensuring the cultural relevance of the development process.

This report—part of a series sponsored by the Tribal College Research and Database Initiative, a collaborative effort between the American Indian Higher Education Consortium (AIHEC) and the American Indian College Fund—describes some of the economic development efforts of the Tribal Colleges. Although the data needed to perform a comprehensive analysis of the economic impact of Tribal Colleges are not available, the report argues that the colleges affect local community development on many levels. Specific data from national sources, as well as examples from the Tribal Colleges and the reservations on which they are located, are used to illustrate these effects. In the first section, background is provided on the economic circumstances of Indian reservations and the potential for postsecondary institutions to help. The focus is then narrowed to the impacts of Tribal Colleges in particular, including both direct economic effects—such as expenditures—and long-term effects such as the development of

[1] As used in this report, the term "Tribal Colleges" includes tribally controlled postsecondary institutions, as well as congressionally and federally chartered Indian colleges.

Figure One: Tribal Colleges in the United States

State	College(s)	Reservation(s)	Chartering Tribe(s)
Reservation-based:			
Arizona (AZ)	Dine College (formerly Navajo)	Navajo Nation (also in part of NM and UT)	Navajo Nation
Michigan (MI)	Bay Mills Community College *	Bay Mills (Ojibwa) Indian Community	Bay Mills Indian Community
Minnesota (MN)	Fond du Lac Tribal and Community College	Fond du Lac Indian Reservation	Fond du Lac Band of Lake Superior Chippewa
	Leech Lake Tribal College	Leech Lake Indian Reservation	Leech Lake Tribal Council
	White Earth Tribal and Community College	White Earth Indian Reservation	White Earth Reservation Tribal Council
Montana (MT)	Blackfeet Community College	Blackfeet Reservation	Blackfeet Tribal Business Council
	Dull Knife Memorial College	Northern Cheyenne Reservation	Northern Cheyenne Tribal Council
	Fort Belknap College	Fort Belknap Reservation	Gros Ventre and Assiniboine Tribes
	Fort Peck Community College	Fort Peck Reservation	Assiniboine and Sioux Tribes
	Little Big Horn College	Crow Agency Reservation	Crow Tribal Council
	Salish Kootenai College	Flathead Reservation	Confederated Salish and Kootenai Tribal Council
	Stone Child College	Rocky Boy Reservation	Chippewa Cree Business Committee
Nebraska (NE)	Little Priest Tribal College	Winnebago Nebraska Reservation	Winnebago Tribe
	Nebraska Indian Community College	Omaha and Santee Sioux Reservations (also Yankton Sioux Reservation in SD)	Omaha Tribal Council, Santee Sioux Tribe, and Yankton Sioux Tribe
North Dakota (ND)	Cankdeska Cikana Community College (formerly Little Hoop)	Devils Lake Sioux (Fort Totten) Indian Reservation	Spirit Lake Sioux Tribal Council
	Fort Berthold Community College	Fort Berthold Reservation	Three Affiliated Tribes of the Arikara, Hidatsa, and Mandan
	Sitting Bull College (formerly Standing Rock)	Standing Rock Reservation (also in part of SD)	Standing Rock Sioux Tribe
	Turtle Mountain Community College	Turtle Mountain Reservation	Turtle Mountain Band of Chippewa
South Dakota (SD)	Cheyenne River Community College	Cheyenne River Sioux Reservation	Cheyenne River Sioux Tribal Council
	Oglala Lakota College	Pine Ridge Reservation	Oglala Sioux Tribal Council
	Sinte Gleska University	Rosebud Reservation	Rosebud Sioux Tribal Council
	Sisseton Wahpeton Community College	Lake Traverse Reservation (also in part of ND)	Sisseton Wahpeton Sioux Tribal Council
Washington (WA)	Northwest Indian College *	Lummi Reservation	Lummi Indian Business Council
Wisconsin (WI)	College of the Menominee Nation	Menominee Reservation	Menominee Nation
	Lac Courte Oreilles Ojibwa Community College	Lac Courte Oreilles Ojibwa Reservation	Lac Courte Oreilles Band of Lake Superior Chippewa
Non-reservation-based:			
California (CA)	D-Q University		Coalition of 19 tribes and bands
Kansas (KS)	Haskell Indian Nations University		Federally chartered
New Mexico (NM)	Institute of American Indian Arts		Federally chartered
	Southwestern Indian Polytechnic Institute		Federally chartered
	Crownpoint Institute of Technology **	Navajo Nation	Navajo Nation
North Dakota (ND)	United Tribes Technical College **		North Dakota Development Corp (representing four tribes)

* Bay Mills Community College and Northwest Indian College serve other reservations in their respective states. Other Tribal Colleges may do so as well.

** Crownpoint Institute of Technology and United Tribes Technical College are vocational institutions chartered by tribes that also chartered one of the reservation-based colleges. They are excluded from the reservation-based colleges in this report only to avoid duplication of data.

Note: Red Crow Community College, located in Canada, is not included here.

Source: Tiller, 1996; BIA, 1995; AIHEC and The Institute for Higher Education Policy, 1999

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Economic Development: A New Definition

Underpinning the purposes of this report is the belief that success in economic development for American Indian reservation communities cannot be achieved without a broad vision of that development. The desire for tribal autonomy and the emphasis on traditional values has led most tribes to prefer a "holistic approach to development, which is culturally appropriate and ecologically prudent and which encourages human development as it fosters capital development" (First Nations Development Institute, as cited in Fettig, 1992). The goal is not simply wealth, but community development and social renewal (Boyer, 1997). Non-economic goals are inextricably tied to economic goals, as development from the perspective of tribes involves three aspects: economic well-being, political sovereignty, and social sovereignty. Development strategies that offer economic payoffs but undermine political or social sovereignty may be rejected by many tribes (Cornell and Kalt, 1990).

The conventional definition of economic development focuses on increases in the well-being of local residents, as indicated by increases in the level of employment and per capita income (OERI, 1996). As noted by the Rural Community College Initiative, however, the improvement of economic opportunities in dependent, rural areas requires more than traditional job creation. Rather, effective practices must "stimulate indigenous entrepreneurial development and civic capacity" (Eller et al., 1998, p. 2). To a large extent, therefore, it is the types of jobs and the way in which they are generated that is important. Under this conceptual framework, "economic development" for American Indian communities means:

- Creating jobs, raising incomes, generating wealth, and reinvesting wealth locally;
- Understanding existing "natural economies";
- Creating a foundation for business development, including technology, capital, a high-quality labor force, and sound physical and civic infrastructures; and
- Using local values to shape the integration of the regional economy into the broader economy.

A range of economic development strategies emerges from this definition, including traditional business development tactics; promoting small business development and entrepreneurship; providing leadership and training future leaders; encouraging a strong education ethic; and becoming a center for workforce development that meets local employers' changing needs. All of these strategies must be culturally appropriate in order to succeed, as cultural factors are essential to long-term development (Eller et al., 1998). Successful strategies cannot challenge the existing tribal cooperative systems. In addition, due to the rural nature of most Tribal College reservations, economic development frequently includes land use plans and strategies for agricultural improvement.

increased skill levels and employment in the local workforce, encouragement of small business and entrepreneurship, and improvement of land use and agricultural activities. Because the colleges are at different stages of growth and exist in distinct economic landscapes, the range of their contributions to local development vary widely. Nevertheless, the report reveals that the Tribal Colleges are vital components of the process of building a foundation for future growth on Indian reservations and are strongly contributing to the economies of this nation's most disadvantaged areas.

II. BACKGROUND: INDIAN COUNTRY, HIGHER EDUCATION, AND ECONOMIC DEVELOPMENT

"... the unemployment rate on this hallowed reservation is nearly 75 percent. That is appalling, and we can do better."
— President William J. Clinton,
Pine Ridge Reservation, July 7, 1999[2]

Economic development is especially important to Tribal Colleges because of the historical problems with high rates of poverty and unemployment that have endured on the reservations on which they are located. It appears that poverty and unemployment rates are much higher among American Indians who live on reservations than among American Indians who live elsewhere (Sherblom, 1990). Poverty in reservation communities has been accompanied by various social problems, such as alcohol and drug dependency, high incidence of diabetes and other diseases, and high rates of suicide. Furthermore, American Indians living on reservations historically have had low rates of educational attainment.

At the same time, economic development on reservations would have a positive impact on the broader well-being of state, regional, and national economies. One recent study (Naake, 1998) revealed that Indian reservations, when considered as a group, have significant financial and job effects for non-reservation economies.[3] Spending by reservation residents, tribal governments, and reservation-based businesses is estimated to create 300,000 jobs and $10 billion in wages and salary income in the national economy each year. The author concludes that "the more vital reservation economies are, the more pronounced are their positive economic (and fiscal) impacts on the national economy" (p. 4).

Problems on Indian Reservations and Other Rural Economies

"The changing economics of family farming present new challenges for agricultural innovation and rural economic development."
— Kellogg Commission on the Future of State and Land-Grant Universities, 1999

The majority of the almost 300 Indian reservations in the United States are located west of the Mississippi River in isolated rural areas (Houser, 1995). Almost 44 percent of the American Indian population lived in rural areas in 1990, compared to 25 percent of the total U.S. population (NCES, 1998). Because they are so concentrated, American Indians are particularly vulnerable to the economic problems faced by rural areas (Tootle, 1997). The economy of the American heartland has undergone great change in recent years, including deep recessions in agriculture and energy, restructuring in manufacturing, and the emergence of the service industry. Although some rural areas with scenic amenities or located in emerging trade centers have experienced recent growth, many areas remain in steep economic decline—especially farm-dependent and very remote areas. In general, rural areas that have the potential to improve economically have lower labor and other business costs, better trans-

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[2] As cited in Babington, 1999.

[3] Impacts were estimated to include the following: the 1.24 million residents of Indian reservations spend approximately $3.1 billion annually off the reservation; tribal governments make approximately $1.2 billion in off-reservation expenditures for goods and services that are required to maintain the health, safety, and welfare of their communities; and the more than 20,000 reservation-based businesses spend approximately $4.4 billion annually off-reservation for necessary goods and services.

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portation, more doctors, more retirement activity, more colleges, and a better educated workforce (Drabenstott and Smith, 1996). Unfortunately, many Indian reservations do not currently exhibit the characteristics necessary to improve their chances of economic growth.

There are many obstacles to economic development on reservations, including the following (Tootle, 1997; Sunchild, 1998; Ambler, 1992; Sherblom, 1990; Eller et al., 1998):

- Low levels of education, shortages of skilled workers, and a lack of management expertise
- Limits regarding the use of reservation land held in trust by the federal government—property tax is not collected for such land, and the land cannot be used as collateral for loans
- Non-arable or poor-quality land, fragmented land ownership patterns, and frequently harsh climates
- Geographic isolation from major population centers
- Poorly developed physical infrastructures, such as transportation, water access, and utilities
- Lack of access to capital, as well as poorly developed institutional infrastructures in banking and financial services
- Low levels of investment by both insiders and outsiders
- Outsiders' lack of understanding of the sovereign immunity granted to tribal governments
- Need for consistent tribal regulations and policies toward business, across reservations and over time
- Long histories of exclusion, economic exploitation, and financial dependence on government welfare programs

Reservations also have been impacted by larger trends in the American and world economies, including the movement of entry-level manufacturing jobs out of the country; the tendency of industries to cluster, as illustrated by Silicon Valley; and the growing use of just-in-time delivery, which depends on regular, rapid access to parts and materials. These trends affect tribal communities, which are somewhat dependent on the economic circumstances of surrounding communities. The broader trends also may compound obstacles such as the lack of rural transportation networks; for example, a lack of easy access to highways and other transport systems not only is a huge barrier to getting jobs, but also renders just in time delivery nearly impossible.

The Rural Community College Initiative

The Rural Community College Initiative (RCCI) is a national demonstration project that aims to help community colleges in specific distressed rural areas to expand access to postsecondary education and help foster regional economic development. To accomplish this goal, the Initiative hopes to strengthen rural community colleges by enhancing their capacity to provide economic leadership for their regions and serve as agents for community development. Each participating college—which includes nine pilot colleges and 15 other institutions—receives an initial grant to support the development of plans by representatives from both the college and the community, followed by modest implementation grants, annual institutes, and on-site consulting. RCCI is a partnership of the Ford Foundation, the American Association of Community Colleges, MDC, Inc., the American Council on Education, and the participating colleges (see AACC website, www.aacc.nche.edu).

The Initiative has targeted the economically distressed areas of the Southeast, the Deep South, the Southwest, Appalachia, and western Indian reservations. As a result, the participating colleges include six Tribal Colleges: Blackfeet Community College, Fort Belknap College, Fort Peck Community College, Salish Kootenai College, Sinte Gleska University, and Sitting Bull College. Through the Initiative, it already has become clear that some "innovative and culturally conscious approaches to small business development are taking place in the tribal colleges" (Eller et al., 1998, p. 8). In particular, micro-enterprises may form the basis of future economic development on the reservations, and can be supported by the colleges through entrepreneurship courses, degree programs, and technical assistance.

The Rural Empowerment Zone and Enterprise Community Program

The Empowerment Zone and Enterprise Community (EZ/EC) Program, sponsored primarily by the U.S. Departments of Agriculture (USDA) and Housing and Urban Development (HUD), is designed to provide communities with real opportunities for growth and revitalization. The program has four guiding principles: the creation of jobs is the foundation for economic self-sufficiency; sustainable development can only be successful if job creation and other efforts are integrated into a comprehensive strategy that includes physical and human development; all segments of the community must participate in development efforts, and partnerships must be formed with and among the various levels of government; and a bold vision for change is necessary to create a strategic plan for revitalization (see EZ/EC website, www.ezec.gov).

The Community Empowerment Program was enacted in 1993. In 1994, communities with high rates of poverty applied in the first round of the program, and three rural Empowerment Zones and 30 rural Enterprise Communities were named. Indian reservation lands became eligible for the second round of the program, which in 1998 established five new rural Empowerment Zones and 20 rural Enterprise Communities. Four reservation communities with Tribal Colleges will be participating in Round II of the program: the Oglala Sioux Tribe Empowerment Zone in South Dakota; the Fort Peck Assiniboine and Sioux Tribe Enterprise Community in Montana; the Northwoods Niijii Enterprise Community in Wisconsin, which is being led by the Menominee Indian Tribe; and the Four Corners Enterprise Community in Arizona, New Mexico, and Utah, which includes the Navajo Nation (as well as the Ute Mountain Ute Tribe and the Hopi Tribe). These communities are home to Oglala Lakota College, Fort Peck Community College, College of the Menominee Nation, and Diné College, respectively. The colleges are likely to play a role in the strategic vision of EZ/EC revitalization.

Empowerment Zones and Enterprise Communities are eligible for varying combinations of grants, tax benefit packages, flexibility in overcoming regulatory requirements, and other benefits (see GSA, 1999). In addition, they may receive special consideration in competition for funding through some federal programs. Round II EZ/EC grants are administered by the USDA Rural Development office and will be available to the communities in late 1999.

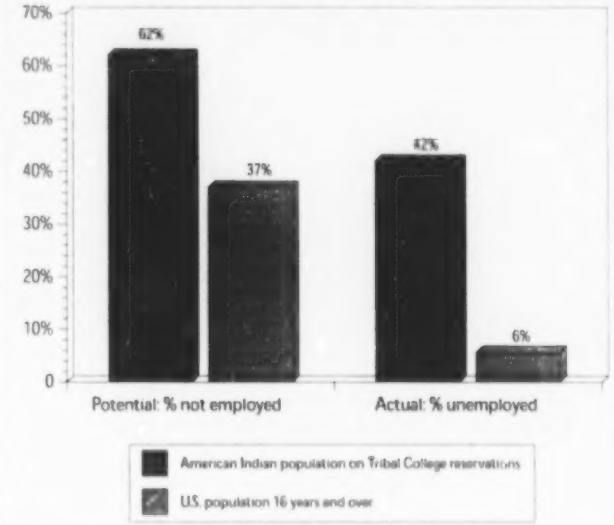
Many of these features combine to deter even routine investment in Indian Country. For example, between 1992 and 1996, lenders made only 91 conventional home loans to American Indians on trust lands (*USA Today*, July 8,1999). In addition, such obstacles discourage businesses from locating on or near reservations The larger businesses that do exist on reservations tend to be established with federal or tribal money or are involved in natural resources extraction. Because tribal governments have been under pressure to maximize employment, the primary purpose of tribal-owned businesses—particularly in the past—was to provide jobs rather than to be profitable (Federal Reserve Bank of Kansas City, 1994). At the same time, small businesses offering basic services such as groceries may be scarce, and small business entrepreneurs must deal with a shortage of venture capital and start-up money, and a relative lack of technical and managerial advice (Levitan and Miller, 1993).

Despite recent economic growth on and around some reservations, tribal wealth remains uneven, and economic development has not necessarily translated into improvements in jobs and economic well-being for all communities. Jobs are scarce due to the small size and isolation of many reservations, and a substantial proportion of reservation residents do not even participate in the labor force (Tootle, 1997). The jobs that do exist on reservations tend to be in the public sector—for example, major employers are federal and tribal governments, schools, and the U.S. Public Health Service (Houser, 1995). Perhaps as important, American Indians in rural areas are less likely to secure positions in occupations that allow upward mobility:

Despite the increased need for Indians with managerial expertise and administrative skills generated by self-development initiatives, better paid managerial, supervisory, and professional speciality jobs are still disproportionately filled by Whites. . . . In contrast, American Indians are much more likely to be employed in general services, agriculture, forestry, or fishing (Tootle, 1997, p. 107).

Like the economic circumstances prevalent in Indian Country overall, the reservations served by Tribal Colleges tend to have high rates of poverty and unemployment.[4] (See Figure Two.) The unemployment rate of American Indians living on Tribal College reservations averaged 42 percent in 1995, and was as high as 77 percent on the Cheyenne River Sioux reservation in South Dakota, home of Cheyenne River Community College. Yet unemployment rates do not account for adults who are no longer looking for work and have left the labor force. Looking at the potential labor force, the average percent who are not employed increases to 62 percent, and was reported to be 95 percent on the Rosebud Sioux reservation in South Dakota, on which Sinte Gleska University is located (BIA, 1995). In comparison, the U.S. population as a whole had an unemployment rate of about 6 percent in 1995, and an estimated 37 percent of the potential labor force who were not employed (U.S. Census Bureau, 1998).

Figure Two: Average Unemployment on Tribal College Reservations Compared to U.S. Population Overall, 1995



Note: Actual unemployment is the percentage of the labor force that is not working, potential unemployment is the percentage of the civilian population that is not working, and therefore includes both the traditional "unemployed" as well as those who are not in the labor force. Reservation unemployment figures are for American Indian residents only. Excludes six colleges that are not reservation-based or are the second college on a reservation.

Source: BIA, 1995; U.S. Census Bureau, 1998, Table 644

The average per capita income on Tribal College reservations was only $4,665, while the average per capita income for the U.S. population overall was $19,188 in 1990 (Tiller, 1996; U.S. Census Bureau, 1998).[5] (See Figure Three.) On the Pine Ridge Reservation in South Dakota, home of Oglala Lakota College, more than 70 percent of residents do not have jobs. The main business on the reservation is a gas station, and many homes in the community do not have running water or telephones. The area has been called the poorest census tract in the nation (S. Ross, 1999; Babington, 1999).

Potential Impacts of Postsecondary Institutions on Rural Economic Development

"Tribal Colleges develop the reservation economics . . ."
—Lionel Bordeaux, President, Sinte Gleska University

Accompanying the poor economic circumstances of most rural reservations are the low levels of educational attainment for most reservation-based American Indians. On Tribal Col-

[4] In this report, reservation-based Tribal Colleges refer to 25 of the 31 colleges in the United States. Crownpoint Institute of Technology and United Tribes Technical College are the vocational colleges chartered by their respective tribes (in addition to other Tribal Colleges), and generally are excluded from the data analysis so as not to duplicate information. D-Q University in California was chartered by a coalition of 19 tribes and bands, and is not located on a reservation. In addition, three colleges—Haskell Indian Nations University, the Institute of American Indian Arts, and the Southwestern Indian Polytechnic Institute—are federally or congressionally chartered and are not located on reservations. However, it is important to keep in mind that these colleges have similar impacts on their local communities, and serve many American Indian students who return to their reservations with increased skills and other benefits.

[5] The data from Tiller, 1996 are taken primarily from 1990 Census data, but may have been updated with more recent information from the tribes themselves.

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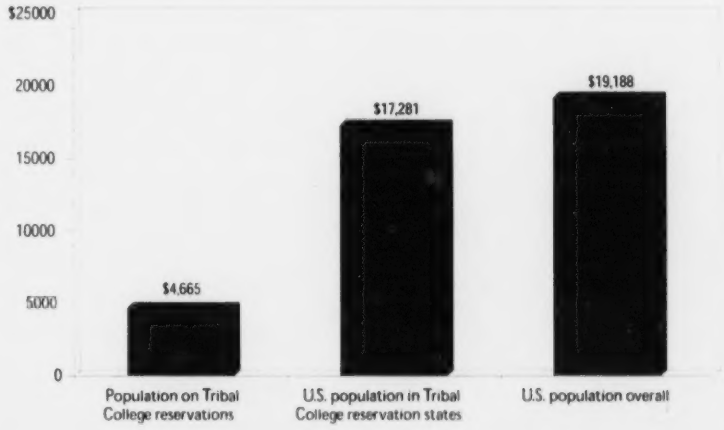
lege reservations, an average of 65 percent of the population graduated from high school, and only 6 percent received a bachelor's degree or higher (Tiller, 1996). In comparison, 82 percent of all Americans 25 years and older had completed high school in 1995, and 23 percent had received a bachelor's degree or higher (U.S. Census Bureau, 1998). (See Figure Four.) Tribal leaders continue to be concerned with the low levels of educational attainment on reservations and place a high priority on reversing this trend (R. Wells, 1997). Given the importance of education to raising the levels of income and employment, one can see how important higher education institutions—and Tribal Colleges in particular—will be to the future development of reservation communities.

Figure Three: Average Personal Income Per Capita on Tribal College Reservations Compared to U.S. Population Overall, 1990



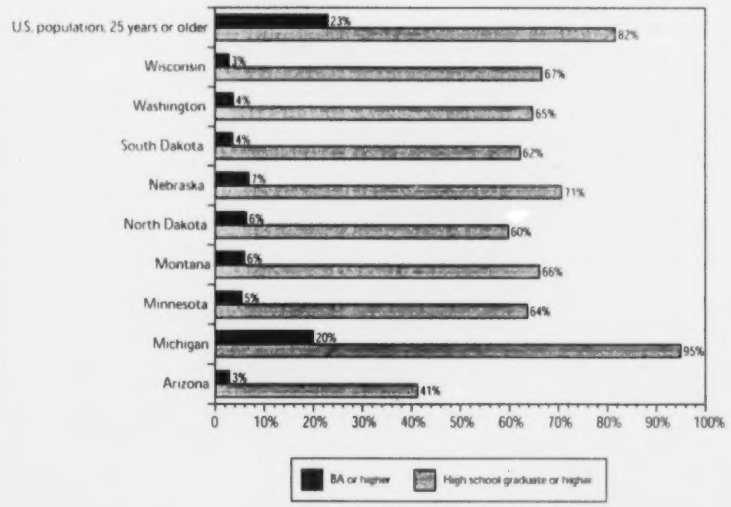
Note: Most reservation data were derived from the 1990 Census, but some may have been updated with more recent figures (to 1995). Data excludes six colleges that are not reservation-based or are the second college on a reservation. In addition, data was not available for six reservations. Income figure for U.S. population in Tribal College states was calculated from only those states in which reservation-based Tribal Colleges have their primary location (Arizona, Michigan, Minnesota, Montana, Nebraska, North Dakota, South Dakota, Washington, and Wisconsin), and is an average of state averages.

Source: Tiller, 1996; U.S. Census Bureau, 1998, Table 727

Tribal Colleges' development efforts share important similarities with those of many different kinds of postsecondary institutions. For example, community colleges contribute to the development of local communities in specific ways:

- **Direct spending and employment.** Community colleges, their students, and their employees make various purchases that contribute to demand in the local economy. In addition, the colleges directly create many jobs.
- **Workforce development.** Through their instruction, they increase the skills of local workers, which in turn increases the employment and earnings opportunities of these workers (Harris, 1997). Generally, community colleges tailor their programs to meet specific local needs, and their curricula tend to change continuously to reflect shifting needs (McNutt, 1995).
- **Business attraction.** The development of local human capital leads to increases in local productivity (Nespoli, 1991). By increasing the skills of the local workforce—as well as performing community impact studies and other activities—community colleges encourage business and industry to locate in the region (Cavan, 1995).
- **Small business and entrepreneurship development.** In many reservation communities, local entrepreneurs wanting to start their own small businesses need help in understanding and surmounting the challenges they face. Community colleges also serve entrepreneurs by providing business development expertise through technical assistance, the operation of Small Business Development Centers, incubation services, and specially targeted programs (OERI, 1996). Approximately 40 percent of community colleges in small communities and rural areas operate Small Business Development Centers. In addition, a small number are involved in business incubators—facilities in which shared services and management assistance are provided for tenant companies, usually in exchange for rent, fees, a percentage of sales revenue, or equity in the company (Weinberg and Burnier, 1991).
- **Technology transfer.** Community colleges also can contribute to the development of physical capital by applying their research expertise—by demonstrating new technologies, serving as information clearinghouses on new technologies, or other innovation-related activities (OERI, 1996; Nespoli, 1991).
- **Leadership.** Community college leaders play a major

Figure Four: Average Educational Attainment on Tribal College Reservations by State, Compared to U.S. Population Overall



Note: Reservation data exclude six colleges that are not reservation-based or are the second college on a reservation, and three colleges for which information was not available. Two additional colleges did not have information for BA or higher. U.S. population data are for 1995; reservation data are for 1990-95. Reservations were assigned to states based on the primary location of the Tribal College, even in cases in which a reservation crosses state lines.

Sources: Tiller, 1996; U.S. Census Bureau, 1998, Table 260

role in making a public commitment to economic development, and in creating public awareness of the importance of college programs and activities to future growth (Thomas, 1989).

- **Linkages.** Community colleges act as leaders to open up the lines of communication between public education, social services, four-year colleges, and the business community (Cavan, 1995). "Especially in distressed areas, the community college is often the institution best capable of initiating and nurturing the local partnerships and regional collaborations that can help solve critical community problems" (Eller et al., 1998, p. 1).

Tribal Colleges are perhaps most comparable to rural community colleges, which are more likely to operate with lower levels of resources than other community colleges or four-year institutions but tend to take on a more expansive role in community development (Thomas, 1989). "In rural areas, the local community college is the only game in town for economic development, cultural enrichment, and higher education" (Cavan, 1995, p. 9). Thus, rural community colleges traditionally play a dominant role in the community, and may be the "primary catalyst for improving the quality of rural life" (AACC, 1992, p. 3). Although the resources of Tribal Colleges tend to be even lower than those of most rural community colleges, Tribal Colleges are similar in their significance for the local community.

As new land-grant institutions, Tribal Colleges also have become part of a specific tradition of involvement in economic development. Like community colleges, land-grant universities have been formally involved in rural economic development for many decades. According to a survey by the National Association of State Universities and Land-Grant Colleges (NASULGC, 1997), land-grant universities foster new business and create long-term job growth; promote innovation; enhance the workforce; and conduct research at the forefront of sustainable agriculture in order to improve the quality of rural life. They therefore perform many of the same activities as community colleges, and often work in cooperation with nearby community colleges in local development efforts.

Tribal Colleges also share experiences with other minority-serving institutions. Historically Black Colleges and Universities (HBCUs), for example, took on the responsibility of improving the economic well-being of African Americans from their earliest stages, and appear to be better at preparing African American students for professional life than predominantly white institutions (OERI, 1996). Research has shown that attendance at HBCUs has human capital development benefits that lead to higher wages in the labor market (Constantine, 1995; OERI, 1996). Like Tribal Colleges, HBCUs have faced barriers to their involvement with economic development that are specific to their role as minority-serving institutions, including: limitations in their curricula due to historic underfunding; exclusion from many informal social networks; and perceived or real effects of racial bias (OERI, 1996).

Tribal Colleges contribute to local development in numerous ways that are similar to efforts of other postsecondary institutions. At the same time, they add two unique aspects. First, Tribal Colleges integrate cultural relevance into their development efforts, as tribal traditions and values permeate the curricula and learning styles of the colleges. This ability of the colleges fits in with the broad vision of economic development in which higher education institutions become "community-building colleges," empowering their local communities to create sustainable economic activities while preserving traditional cultural values (Eller et al., 1998, p. 6). Second, Tribal Colleges have a special responsibility to help local communities understand the nature of choices between different types of economic growth, given the specific history of economic development on reservations. For example, job creation may mean reliance on one industry to provide a steady supply of jobs (as it has in the past), or it may mean a dynamic expansion of the economy with new jobs and businesses; Tribal Colleges can illuminate the disparate impacts of these types of development on the long-term health of the community. Both of these special aspects of Tribal Colleges' contributions to local economic development support the future success of such efforts.

III. TRIBAL COLLEGES AND LOCAL ECONOMIC DEVELOPMENT

"Today, the tribal colleges are offering the reservations and tribal communities the chance to build knowledge, skills, confidence, and pride in a way not possible for non-Indian institutions to offer."
— Paul Boyer, 1997

In general, the Tribal Colleges have both direct and long-term impacts on local economies. Direct effects result from the dollars spent and circulated into the economy, and come through several mechanisms: spending by the institution, employees, students, and even visitors; jobs, including college employees and jobs created by college spending; and the provision of services to the local community. The long-term effects result from the completion of a college's mission, and include the following: workforce development; fostering entrepreneurship and small business growth; initiation and dissemination of new research; and promoting efficiency and environmentally sound practices in agriculture and natural resources (NASULGC, 1996). Arguably, the long-term impacts of Tribal Colleges on their local communities may be even more important to local economic development than the direct economic effects, as they help communities establish a foundation for future growth.

Direct Contributions to Economic Growth

"With a clearer understanding of the requirements for economic growth on reservations, specialists in the field see a new role for the federal government, for tribes and for Indian institutions. At the vanguard, they see the tribal colleges."
— Marjane Ambler, 1992

It is difficult to obtain data on spending by Tribal Colleges and their students. However, it is clear that Tribal Colleges spend money on faculty and staff compensation and direct purchases. In Fiscal Year 1996, for example, each Tribal College spent an average of $2.1 million for employee salaries and other benefits.[6] In comparison, rural community colleges overall spent an average of $6.3 million on employee compensation in that year (NCES, 1996a). (See Figure Five.) Meanwhile, employees, visitors, and students spend money for such things as transportation, food, and other living expenses. When employees, visitors, and students are from outside the local community or when the purchases are financed with external financial aid, such spending represents new expenditures that directly result from the colleges' existence. In turn, both of these types of spending stimulate activity in the local economy.

Because they hire a significant number of local residents, Tribal Colleges serve as important employers in the community. In addition to teaching, college employees may be involved in a variety of occupational activities, including administrative positions, professional, clerical, and technical support, skilled crafts, and service/maintenance positions. In 1995, the most recent year for which data are available, Tribal Colleges employed an average of 81 people—including 22 full-time faculty members, and 44 full-time staff members.[7] On average, the total number of faculty and staff employed by all rural community colleges is slightly higher, 88 (NCES, 1995a). (See Figure Six.)

The number of employees ranges widely among the Tribal Colleges. For example, Diné College and Haskell Indian Nations University each employed 200 or more people in 1995.

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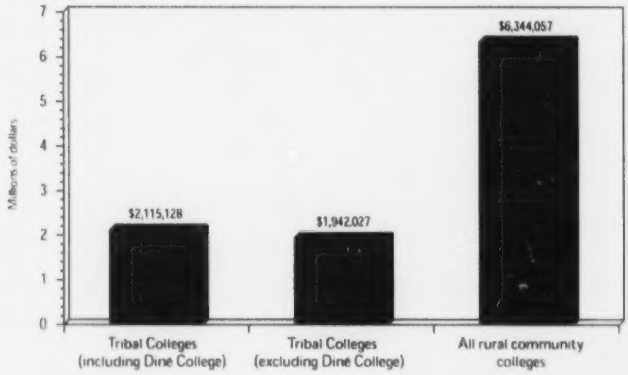
[6] This figure is for the 25 tribally controlled colleges for which information was available for that year. If Diné College is excluded—it skews the statistics due to its age and size—the figure is slightly more than $1.9 million.

[7] This figure is for 20 tribally controlled colleges for which information is available. Total includes part-time employees.

whereas Stone Child College and Bay Mills Community College employed less than 30 people. It is also important to note that at the tribally controlled colleges 57 percent of employees were American Indian, compared to 3 percent at rural community colleges overall. The percentage varied according to position—76 percent of full-time staff were American Indian, compared to 26 percent of full-time faculty.

Finally, Tribal Colleges provide essential services to local residents, businesses, and tribal governments. Such public service activities include continuing education and GED courses, health and counseling clinics, library services, cultural programs, management of public housing, and provision of catering services to students. Head Start programs, and even local prisons. Tribal Colleges often are useful to the tribal leadership by analyzing various economic trends and other factors that will influence the tribal economy (Houser, 1992). In addition, they can serve as focal points for local development initiatives, providing coordination and leadership.

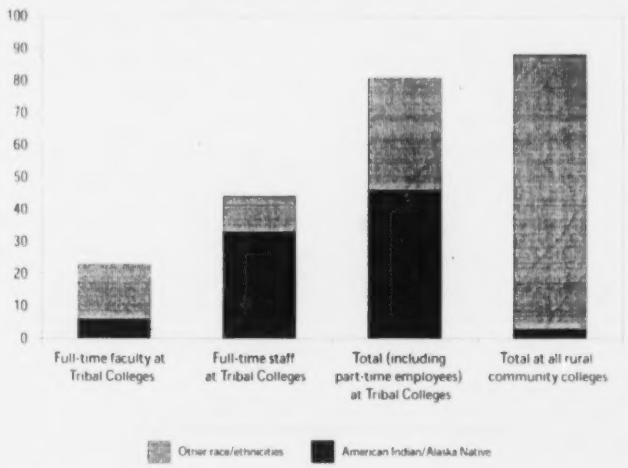
Figure Five: Average Spending on Employee Compensation by Tribal Colleges, Compared to all Rural Community Colleges, FY 1996



Note: Data were available for 25 tribally controlled colleges. Employee compensation includes salaries and other benefits.

Source: NCES, 1996a

Figure Six: Average Number of Employees at Tribal Colleges Compared to all Rural Community Colleges, 1995



Note: Data were available for 20 tribally controlled colleges.

Source: NCES, 1995a

Workforce and Skills Development

"[Salish Kootenai College] had the simple idea that Indian people and Indian organizations knew the degree and certificate programs that they wanted. In addition, it decided to ask them."

— Kellogg Commission on the Future of State and Land-Grant Universities, 1999

Improving the skills and expertise of the local workforce is an essential role of Tribal Colleges. As development on reservations becomes more complex, future managers and business owners will require a greater level of business skills, flexibility, and management expertise. "Tribal Colleges can play a critical role in economic development in Indian Country by thoroughly preparing the next generation of managers and entrepreneurs" (Houser, 1992, p. 15). Tribal Colleges encourage workforce development in several ways: they match their curricula with local needs; they increase the overall skill levels—and commensurate earnings—of the local labor force; and they contribute to higher rates of employment by graduating students who are then employed within the community.

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Reservation Casinos

The publicity about prosperous tribal gaming operations is misleading. Media stories often imply that due to the success of Indian casinos all reservation economies are booming and that American Indians are improving their socioeconomic standing—neither of which is evident from data on income and poverty (Tootle, 1997). "Contrary to popular belief, only a quarter of federally recognized tribes operate casinos, and less than 9 percent earn enough to provide direct payments to members" (NCSL, 1998). The isolation of many reservation communities makes viable gaming operations impossible, and poverty among American Indians has risen despite the gaming boom (National Committee for Responsive Philanthropy, 1995).

Nevertheless, casino gambling has played a major role in the economic growth of some reservations, although not necessarily on Tribal College reservations. The greatest concentration of reservation-based casino gambling is in Minnesota, where the relationship between the state and tribal governments is relatively good.[8] Some evidence is available that shows positive short-term effects of casino gambling, including increased employment, wage levels, and property values (Levitan and Miller, 1993); small tribes located near major urban areas appear to have benefitted the most (National Committee for Responsive Philanthropy, 1995). Revenue from tribal gambling may be used to invest in social welfare programs, tribal operations, economic development initiatives, or other areas (Levitan and Miller, 1993). In fact, tribes have used virtually all their gaming revenue for some aspect of economic development, by channeling it toward tribal employment programs, social and educational programs, and other business enterprises (Leonard, 1996). Some therefore consider gaming operations to be a means to an end, and many successful tribes are diversifying their economic activities with the profits from gaming. However, the long-term effects of casinos remain uncertain, and many fear an increase in crime and other social ills. Other concerns include the sensitivity of gaming revenue to economic cycles, and the fact that gambling is a regressive source of revenue—it tends to attract more betting by low-income people than by high-income people (Madhusudhan, 1996).

Although many of the reservations on which Tribal Colleges are located have forms of gambling, only five Tribal Colleges have received income from gaming revenue from time to time (AIHEC, 1997). Those reservations that have casinos are attempting to use the revenue generated from gaming to improve the local standard of living and potentially diversify into other, more sustainable areas of economic development. In the interim, many Tribal Colleges are offering courses in hospitality and casino management in order to train tribal members to work in the casinos and participate in local tourism opportunities. For example, College of the Menominee Nation in Keshena, Wisconsin has offered training in casino management, hospitality, and customer service through its National Indian Gaming and Hospitality Institute to keep up with the demand for labor on the reservation (D. Wells, 1994).

Matching degree programs to local needs

Tribal Colleges offer a range of courses that are specific to local communities' needs. "Program developers have been careful to create programs that produce graduates with high employability in local markets" (Hill, 1995, p. 36). Thus, Salish Kootenai College first offered courses in forestry, which is a dominant industry in western Montana. Many Tribal Colleges offer degrees in such fields as social service, secretarial skills, and early childhood education to address manpower needs in tribal agencies, day care centers, Head Start programs, and other government sponsored activities. In addition, Fort Peck Community College in Poplar, Montana and other Tribal Colleges have surveyed local businesses and community leaders to find out what skills are needed most. (See Figure Seven.)

[8] The Indian Gaming Regulatory Act of 1988 opened the door to legal casino gambling and permits tribes to offer any type of gambling on its reservation that is already allowed by the state for other purposes; casino-style gambling and gambling not legal in the state require compacts between tribes and states (Levitan and Miller, 1993).

Figure Seven: Matching Tribal College Curricula with Local Needs

Name of College	Selected Major Industries/Employers	Examples of Programs Offered (1998)
Bay Mills Community College (MI)	Local government; tobacco sales	Tribal Business Management; Natural Resources Management
Blackfeet Community College (MT)	Construction; agriculture/ livestock; tourism	Building Trades and Construction Technology; Natural Resources; Hospitality Occupations
Cankdeska Cikana Community College (ND)	Land leases; manufacturing	Tribal Administration; Office Systems
Cheyenne River Community College (SD)	Tribal businesses	Administrative Systems; Business Specialist
College of the Menominee Nation (WI)	Lumber; sawmill; tourism	Timber Harvesting; Hospitality and Tourism
Dine College (AZ)	Agriculture/livestock; forestry; mining	Earth/Environmental Sciences; Pre-Engineering
Dull Knife Memorial College (MT)	Small businesses	Office Management; Entrepreneurship
Fond du Lac Tribal and Community College (MN)	Local government	Law Enforcement; Tribal Management
Fort Belknap College (MT)	Agriculture; land leases	Natural Resources
Fort Berthold Community College (ND)	Gaming; electronics manufacturing	Casino Operations; Entrepreneurship Management
Fort Peck Community College (MT)	Livestock; defense manufacturing	Natural Resources Management; Electronics Technology
Lac Courte Oreilles Ojibwa Community College (WI)	Local government; logging; cranberry farming	Tribal Management; Agriculture and Natural Resources
Leech Lake Tribal College (MN)	Fishing; forestry; retail trade	Natural Sciences; Business Entrepreneurship
Little Big Horn College (MT)	Mineral resource leases; federal government	Human Services; Office Systems
Little Priest Tribal College (NE)	Agriculture	Environmental Science
Northwest Indian College (WA)	Fishing; seafood processing	Fisheries Enhancement; Environmental Engineering Techology
Oglala Lakota College (SD)	Agriculture; small businesses	Natural Resources Management; Agri-Business; Organic Agriculture; Entrepreneurship
Salish Kootenai College (MT)	Lumber; construction	Environmental Science; Forestry; Heavy Equipment Operation; Building Trades
Sinte Gleska University (SD)	Livestock; jewelry manufacturing	Biological Science; Agribusiness; Business Administration
Sisseton Wahpeton Community College (SD)	Agriculture (leases); livestock; trash bag manufacturing	Natural Science; Business Administration
Sitting Bull College (ND)	Land leases; gaming	Business Administration/Management; Casino Management
Stone Child College (MT)	Lumber	Construction Technology
Turtle Mountain Community College (ND)	Cargo container manufacturing; watch manufacturing; data entry	Engineering Studies; Office Education
White Earth Tribal and Community College (MN)	Local government; retail trade; garment manufacturing	Tribal Business Management; Computer Information Systems

Source: Tiller, 1996; AIHEC, 1998

Tribal Colleges offer programs in other marketable areas, such as nursing, computer-related technologies, and electronics technologies, which were considered the "hot" community college programs in 1997 (Kienzl and Woods, 1998). According to a survey of Tribal College students (Boyer, 1995), business was the most common field of study (19 percent), followed by health professions (15 percent), education (12 percent), and vocational/technical trades (11 percent). Before the Oglala Lakota College Nursing program began, very few nurses at the local Indian Health Service hospital were American Indian; today, 50 percent are graduates of the college's program (Billy, 1999).

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Increased skills/productivity of local citizens

Through the teaching of their curricula, Tribal Colleges increase the skills and productivity levels of their students. In turn, this leads to higher earnings for their students, and thus for the community as a whole. One recent study attempted to measure these effects by examining economic indicators for Tribal College reservations compared to similar reservations without Tribal Colleges (Harris, 1997). It indicated a positive correlation between Tribal Colleges and both workers' incomes and significantly lower poverty rates.

- Over the past few decades, median income for males and females grew at faster rates on Tribal College reservations than on the reservations without Tribal Colleges. For example, between 1980 and 1990 the growth in female median income was 49 percent greater on Tribal College reservations than on reservations without Tribal Colleges.
- Between 1980 and 1990, overall poverty rates grew 22 percent more on the reservations without Tribal Colleges, and family poverty increased 8 percent more.

Thus, reservations with Tribal Colleges appear to have improved their economic circumstances more than similar reservations without Tribal Colleges have. The results hold even when accounting for the broader influence of states' economic progress. In addition, there appeared to be a positive relationship between the number of years each Tribal College had been in existence and most of the income measures. All of these findings suggest that Tribal Colleges are directly impacting the economic health of their local communities.

Because of the relatively high rates of participation in postsecondary education on many Tribal College reservations, these institutions have the potential to significantly improve the skills and earnings of a substantial proportion of local residents. For all reservation-based, tribally controlled colleges that serve primarily students from their own reservation, 4 percent of the American Indian residents ages 16 to 64 were enrolled in fall 1995—and in some states, the percentage was 10 percent or more.[9] (See Figure Eight.) This suggests that a significant proportion of adults were participating in a Tribal College education in some way during that semester, and an even greater proportion have taken Tribal College courses over many years. This compares favorably with the slightly less than 3 percent of the population 18 years and older who were served by all community colleges in the same semester (Phillippe, 1997). At the same time, this participation has a multi-generational effect — the children of Tribal College graduates will be more likely to attend college, thereby encouraging continuing development of the workforce in the future.

Figure Eight: Participation Rates for Reservation-Based Tribal Colleges by State, 1995

State	Reservation population ages 16 to 64, American Indian residents	Fall enrollment, American Indian students	Enrollment as % of population
Arizona	124,421	1,665	1%
Michigan	465	261	56%
Minnesota	4,266	200	5%
Montana	23,422	2,407	10%
North Dakota	17,616	1,004	6%
Nebraska	7,661	208	3%
South Dakota	43,082	1,617	4%
Washington	2,678	1,189	44%
Wisconsin	5,185	581	11%
Overall	**228,796**	**9,132**	**4.0%**
Excluding Bay Mills and Northwest	**225,653**	**7,682**	**3.4%**

Note: Bay Mills Community College and Northwest Indian College both serve all or most of the reservations in their respective states. Six colleges are excluded because they are not reservation-based or are the second college on a reservation; an additional four colleges are missing data. Reservations were assigned to states based on the primary location of the Tribal Colleges, even in cases in which a reservation crosses state lines.

Source: BIA, 1995 (population figures); NCES, 1995b (enrollment figures)

Employment of graduates within the community

In addition to improved skills and higher earnings, Tribal Colleges' efforts in workforce development appear to lead to higher rates of employment. Although national data are

[9] Measured as fall 1995 American Indian enrollment (from NCES, 1995b) as a percentage of the American Indian reservation population ages 16 to 64 (from BIA, 1995) for 19 of the colleges. Federally controlled colleges were excluded, as were colleges that are not reservation-based. Crownpoint Institute of Technology and United Tribes Technical College were excluded because their chartering tribes have other Tribal Colleges. If Bay Mills Community College and Northwest Indian College are excluded—they serve many students on other reservations—the figure is 3 percent.

Tribal Colleges and Welfare Reform

The 1996 welfare reform legislation, with its stricter work and job training requirements, is expected to influence Tribal Colleges and their communities in numerous ways. The reservations on which most of the colleges are located have relatively high numbers of welfare recipients, many of whom have low levels of education or are disabled. Given these needs, both states and tribes are turning to the colleges to provide remedial education and job training to reservation residents—both Indian and non-Indian residents (Shanley, 1997).

The most obvious effects of the welfare reform provisions on the colleges can be seen in enrollment changes. On the one hand, welfare recipients may get pushed out of higher education and into jobs; on the other hand, the new requirements may drive recipients who lack basic skills into basic adult education, GED, and vocational training programs. Like most community colleges, Tribal Colleges do not know much about the welfare status of their students. Nevertheless, according to a survey by the American Indian Higher Education Consortium in spring 1998, 12 of the 20 responding colleges have seen enrollment changes that they believe can be attributed to welfare reform. The reported shifts varied: five of the colleges mentioned increases in enrollment; three felt the enrollment changes have been mixed; one college said enrollment has declined; one college believed the students were getting younger; and two did not mention the direction of the enrollment changes.

In order to address these enrollment changes, many colleges are repackaging their programs to enable the best possible education for welfare recipients within the 12 months generally allowed for vocational training. Seven colleges that responded to the survey have created new vocational training programs in the past year, and an additional five colleges are planning to do so in the future. Nevertheless, it will be difficult for the colleges to prepare many welfare recipients fully within such a short period.

In addition to educating welfare recipients, the colleges are actively involved in encouraging their transition into the labor force. Virtually all of the responding colleges work with local welfare agencies to coordinate their activities; for example, the New Mexico Human Services Department has contracted with Crownpoint Institute of Technology to provide training to 800 residents of the Navajo Nation (*Tribal College Journal*, Winter 1997-98). At the same time, two tribes that have chartered Tribal Colleges—the Sisseton Wahpeton Sioux of South Dakota and the Confederated Salish and Kootenai of Montana—have taken advantage of the welfare legislation to create their own plans for providing welfare services to tribal members under the new block grant program (HHS, 1998). It is likely that the respective Tribal Colleges will play integral roles in this process—in the case of the Sisseton Wahpeton Sioux, the tribe has turned to its Tribal College to provide educational and job readiness training to welfare clients (*Tribal College Journal*, Winter 1997-98).

not currently available, some specific examples suggest that Tribal College graduates are performing significantly better than tribal members who have not attended, in terms of their rates of employment and continuing education.

- According to data from Stone Child College (1997), located on the Rocky Boy Reservation in Montana, by 1997 63 percent of all graduates since 1986 were employed; 13 percent were employed by the college, while 50 percent were employed elsewhere. Almost 21 percent of graduates were still attending college, either at Stone Child or another institution. Only 15 percent of graduates were unemployed and were not attending school.[10] This compares to an overall unemployment rate of 72 percent on the reservation (BIA, 1995).
- According to a study of Salish Kootenai College graduates from 1992 through 1996 (Slater, 1997), 86 percent were employed, and 59 percent of associate degree graduates went on to further education. In contrast, 80

[10] These numbers do not add to 100 percent due to the following: 3 percent of graduates were both employed and still attending college, and are therefore included in both percentages; and the current status of 4 percent of graduates was other/unknown.

percent of the labor force on the Flathead Reservation in Montana, where the college is located, was employed in 1995, and only 59 percent of the potential labor force was employed (BIA, 1995).

- According to a study of graduates from Turtle Mountain Community College on the Turtle Mountain Reservation in North Dakota from 1980 through 1990 (Monette, 1995), 50 percent of respondents reported they were employed full-time in a job related to the field of study they had pursued at the college; an additional 5 percent were employed part-time in a related job, and almost 22 percent were employed in an unrelated job. Twenty-three percent reported they were continuing their education on either a full-time or part-time basis.[1] Only 13 percent were unemployed, compared to an unemployment rate of 45 percent on the reservation as a whole for 1995 (BIA, 1995).

To some extent, such success is due to Tribal Colleges' efforts to help their graduates find community-based employment. Many of the colleges provide employment or placement services to their students (AIHEC, 1999b); others, however, do not have the resources to staff such services, and must use more informal mechanisms such as community networks.

The employment of graduates is especially important because so many graduates remain in the community. According to Boyer (1995), almost 85 percent of Tribal College students said that the Tribal College they attended was 50 miles or less from their permanent home. This is true for the overwhelming majority of students at community colleges in general (NCES, 1996b), emphasizing the relevance of local institutions. Furthermore, the faculty and staff positions at the Tribal Colleges have encouraged educated American Indians to remain on the reservations, where they contribute their skills and leadership to those communities and serve as role models (Harris, 1997).

It is important to reiterate a crucial obstacle to the employment of graduates within the community: in many cases, Tribal Colleges are training students for jobs that currently do not exist on the reservation. In some cases, graduates develop skills and abilities that allow them to take local positions that were once held by non-tribal members. However, Tribal Colleges' education and training is also part of the larger process of job creation and expansion of the local economy. When jobs do not exist, many graduates may utilize their Tribal College experiences to create their own jobs through micro-enterprise and other forms of entrepreneurship. Thus, the employment of graduates in the community is linked closely with Tribal Colleges' efforts to encourage the growth of small business and entrepreneurship.

Small Business and Entrepreneurship Development

"For many decades American Indian reservations have been demoralized by the seemingly permanent condition of extreme poverty. . . . tribal colleges are working to provide the leadership, programs, and resources to meet the challenge."
—Ernest L. Boyer, 1989

Tribal Colleges promote long-term economic growth by providing instruction and technical assistance to local business owners and potential entrepreneurs. By doing this, they recognize that the key to economic growth lies not only in improved training and education on the reservations (Fettig, 1992), but also in the encouragement of large numbers of small enterprises that are owned and managed by American Indian entrepreneurs (Sherblom, 1990). A survey conducted in the 1980s (cited in Houser, 1995) revealed the value of micro-enterprises on the Pine Ridge Reservation: such businesses provided income for 87 percent of the households, and 30 percent of responding households indicated that at least half of total household income came from self-employment activity. At the same time, many reservations are in dire need of more local services, such as car repair and retail outlets. Thus, small business development presents one of the greatest opportunities for economic growth (Eller et al., 1998).

Tribal Colleges help relieve two of the main barriers for American Indian businesses: credit availability and management skills. Several colleges have become involved in arranging micro-loans for local small businesses; for example, Sitting Bull College in Fort Yates, North Dakota is working closely with the tribal government to seek funds for microlending for entrepreneurship (Barden, 1998). In addition, Tribal Colleges offer broader training and education to reservation communities, including an increased emphasis on business and entrepreneurism (Fettig, 1992). The colleges promote entrepreneurship and small business growth through courses, workshops, leadership development, and technical assistance via small business centers.

[1] These numbers do not add to 100 percent due to additional categories, such as full-time homemaker and retired, and the fact that some graduates were both employed and continuing their education.

Profile of Development Activities at United Tribes Technical College

Since its inception in 1969, United Tribes Technical College (UTTC) has served multiple tribes in economic development (Maxon and Gipp, 1999). Initially, the college served as the umbrella for economic development planning to four North Dakota tribes—the Standing Rock Sioux, the Three Affiliated Tribes of Fort Berthold, the Devils Lake Sioux, and the Turtle Mountain Band of Chippewa—accompanying a grant from the Economic Development Administration within the U.S. Department of Commerce that allowed the tribes to establish local planners. Since then, UTTC has sponsored numerous conferences and summits in the area of development, bringing together many different tribes to plan for the future.

In general, UTTC encourages economic development in several capacities: providing technical assistance to numerous tribes on the Northern Plains as well as American Indian individuals; serving as an intertribal forum for policy and program discussions; and offering specific kinds of training that are part of its mission. In 1980, the college created an Indian Business Development Center, operated under memoranda of agreement with the Administration for Native Americans, the Bureau of Indian Affairs, and the Department of Commerce's Minority Business Development Agency (which continues to fund the effort). Now called the United Tribes ND/SD Native American Business Development Center, the center promotes the self-sufficiency of American Indian businesses, provides procurement services and specialized training, and offers management and technical assistance. Between 1988 and 1998, the center provided more than $17 million of assistance in the form of prepared financial packages and almost $29 million in procurement of new contracts for clients.

Courses in entrepreneurship and leadership development

Not only do the colleges try to match curricula to existing local economic needs, but they also try to develop programs that encourage the creation of new small businesses and other entrepreneurial activities. For example, the American Indian Entrepreneurs Case Studies and Curriculum, which is being established jointly by Salish Kootenai College and Sinte Gleska University, is structured around eight Lakota tribal values and eight values of the Salish Kootenai tribes. These values are not typically discussed in business textbooks, and include such ideals as respect for others, respect for the Earth, cooperation and generosity, and giving back to the community. For each topic area, specific issues faced by American Indian entrepreneurs are identified—for example, obtaining financing, employing the extended family, reconciling business practices with traditional roles, and gaining the support of the tribal government (Lazarick, 1999). In another example, Fond du Lac Tribal and Community College is using a new Title III institutional aid grant from the U.S. Department of Education to develop a financial services curriculum, in order to encourage more American Indian students to enter the local banking and financial services industry (Billy, 1999). By providing such courses, Tribal Colleges can help encourage local entrepreneurs—as Northwest Indian College did for one member of the Lummi Nation, who attended business classes at the college and now owns a café at the local courthouse (Casey, 1998).

As economic development is linked to the quality of civic leadership, Tribal Colleges also try to strengthen leadership skills. Toward this end, Tribal Colleges draw upon cultural values and entrepreneurial training to build the confidence and skills necessary for successful small business development (Eller et al., 1998). Dr. Joseph McDonald, president of Salish Kootenai College, and David Archambault, former president of Sitting Bull College (when it was known as Standing Rock College), helped create the American Indian Business Leaders (AIBL) organization, which provides role models and mentors for American Indians. There are now student-based chapters of the organization on several reservations, at 14 Tribal Colleges, and at some mainstream institutions (Lazarick, 1999). The chapters of the AIBL provide a forum for discussion and support for American Indian business students and entrepreneurs; create a strong networking system among the Tribal Colleges and university systems; stimulate American Indian student interest in business and tribal economic development; organize an annual career fair held in conjunction with their national conference; and establish summer internship opportunities with tribal, state, federal, and corporate entities.[12]

Tribal Business Information Centers and other initiatives

The Tribal Colleges are also promoting entrepreneurship and small business development through innovative support centers that provide technical assistance. Almost a third of the colleges currently have Tribal Business Information Centers (TBICs), which are funded by the U.S. Small Business Administration (SBA). The TBICs provide help to both students and the wider community with business plans, budgets, marketing, and other activities. Other colleges support small businesses through similar centers that are funded by the colleges themselves, or through other sources. For example:

- Northwest Indian College of Bellingham, Washington has been supporting local entrepreneurs since 1988 through its Business Assistance Center, which provides access to expert advice on business planning and operation. Clients come to the center looking for help in preparing a business plan they can present to banks and government agencies for financing. Other clients already have successful businesses, but require assistance in more specific areas such as inventory control, marketing research, or personnel management (Lansdowne, 1992). In addition to the main campus site, Northwest also has Business Assistance Centers at its instructional sites on seven other reservations in Washington state (*Tribal College Journal*, Spring 1999).
- Lac Courte Oreilles Ojibwa Community Colleges of Hayward, Wisconsin houses a Business Assistance Center in its Entrepreneurial Studies department. The center col-

The Navajo Nation Labor Market and Diné College

The Navajo Nation, located in Arizona, New Mexico, and part of Utah and encompassing more than 26,000 square miles, is relatively rich and abundant in land, water, natural resources, and human and cultural resources (Jones et al., 1997). In most cases, however, these resources have not been developed fully, and the unemployment rate remains very high. Many constraints impede the development of the Navajo Nation, including the lack of private finances and financial institutions, the inadequate infrastructure, and the limited availability of technology and technical manpower. The problems of attracting potential employers also are linked to land tenure and property rights; enforcement of the communal ownership of Navajo land requires a lengthy approval process, in which more than 30 steps through the Navajo Nation and then the Bureau of Indian Affairs are necessary before a business permit can be issued.

The current labor market structure of the Navajo Nation can be divided into three sectors: the primary sector (agriculture, forestry, and fishing); the secondary sector (manufacturing and construction); and the tertiary sector (commerce, finance, transport, and service, including government). Historically, agriculture—and livestock in particular—held the dominant position in the Navajo economy; however, Navajo employers in agriculture have virtually disappeared in recent years, in parallel with the general decline in American agriculture overall. The service sector, on the other hand, has come to dominate the economy; the government is the second largest employer in the Navajo Nation, with more than 20 percent of employment. Despite significant potential, the tourism and recreation industry remain underdeveloped.

In order to address some of the challenges faced by the Navajo Nation, Diné College was established in 1968 as the first tribally controlled community college in the United States. The college offers educational programs that prepare students for entry into employment and for transfer to four-year colleges and universities. It awards associate degrees and technical certificates in areas important to economic and social development. In addition, the college established the Institute for Integrated Rural Development as part of the land-grant initiative to research, develop, and provide extension of educational programs in the fields of Community Development, Economic Development, and Natural Resource Management. The primary objective of the Institute is to integrate traditional philosophy, economic livelihood, and natural resource stewardship to address Navajo rural development needs, in partnership with Navajo communities.

[17] See the AIBL website (www.umt.edu/trio/aibl/hpaibl.htm).

lects business-oriented reference materials for use by students in the Entrepreneurial Studies program as well as walk-in clients who wish to research specific topics related to their business plans or operation. In addition, students and clients can access the Internet and use state of the art software programs to create business documents.[13]

- The Tribal Business Information Center at Fort Belknap College of Harlem, Montana has begun building a computer resource library that includes Internet access for tribal members. Ranchers and farmers use the technology at the center while learning accounting programs to run their businesses more efficiently. In addition, students and other community residents are getting help in developing business plans, and may receive loans of $8,000 to $50,000 from a new tribal loan fund (Eller et al., 1998).

In addition, the colleges assist local businesses in countless other ways. For example, in June 1998 Little Big Horn College of Crow Agency, Montana held the first of a series of economic summits to bring together experts to discuss tourism, loans, and small business start-ups. Participants identified specific business opportunities that were ready for development, discussed the importance of good credit reputations, and stressed the importance of education to future economic growth (J. Ross, 1998). In August 1999, United Tribes Technical College sponsored an economic development summit that showcased tribally controlled and operated businesses, and featured such topics as tribal tourism, effective fundraising strategies, welfare to work strategies, and rural economic development initiatives (Beheler, 1999).

Agriculture and Land Development

"HII NE AWE BII LUX BAA KACHEE K"
[Crow: "The land gives us life"]
—Janine Pease-Pretty On Top, President, AIHEC and Little Big Horn College

Land use and resource development on Tribal College reservations represent another long-term economic impact, as the colleges contribute to improved agricultural and natural resource management practices. "Land tenure is one of the most complicated issues affecting Indian economic development, not only in the sense that it is an economic asset, but also because it is the wellspring of tribal identity and preservation" (Federal Reserve Bank of Kansas City, 1994, p. 16). Overall, American Indian land remains in high demand due to abundant agricultural, timber, and mineral resources. However, "most tribes do not have the capital, technology, or expertise to develop these resources" (Tootle, 1997, p. 103). In addition, these resources are distributed unevenly among reservations and tribes.

As a result of the General Allotment Act of 1887, tribal landholdings overall were reduced by two-thirds and land was distributed in individual parcels to both Indians and non-Indians, resulting in a checkerboard pattern of ownership that limits many economic development opportunities (Federal Reserve Bank of Kansas City, 1994).[14] The system of dividing ownership shares equally among heirs exacerbated the situation and made it virtually impossible for Indian landowners to assemble enough land to make agricultural operations profitable. In addition, before the 1970s the federal government was the de facto manager of American Indians' land, and federal development and spending priorities often conflicted with tribal priorities. Since then, land use policies have changed, and increasing levels of education have given reservation residents the skills needed to protect their interests. Today, tribes have substantial—but not complete—control over the development of surface, underground, and water resources on their reservations (Levitan and Miller, 1993).

Local needs

Together, the reservations on which Tribal Colleges are located make up more than 30 million acres of land, not all of which is tribally owned (Tiller, 1996). Tribal land constitutes a major source of income for many tribes, involving revenue from farming, timber, grazing, and industrial leasing. Nevertheless, there are various obstacles and issues involved in the use of tribal land, many of which must be resolved as part of any economic development process.

Agriculture remains the dominant use for American Indian land, although its importance is decreasing due to both broader trends in the rural economy and problems

[13] From the college's website (www.lco-college.edu)

[14] American Indian land held in trust by the federal government now has three major ownership categories: tribal, single ownership of allotted land, and multiple ownership (through inheritance) of allotted land (Levitan and Miller, 1993).

A Brief History of the Land-Grant Movement

The land-grant college movement during the nineteenth century was a major factor in orienting higher education toward practical knowledge for a broad segment of the population (Bigart, 1997; NASULGC, 1998). The First Morrill Act of 1862 provided for grants of federal land (or land scrip) to support 50 state universities (the "1862 land-grant institutions"), in order to teach in the areas of agriculture and the mechanical arts. As the land-grant colleges grew, they developed community outreach programs that considerably affected rural areas. In 1890, the Second Morrill Act provided for federal funds to support instruction at land-grant institutions, specifying that the funds must benefit African-American students as well as white students. This encouraged many southern states to establish or expand colleges for black students, leading to 16 new land-grant institutions (the "1890 land-grant institutions"). Seven more institutions, primarily from U.S. territories and the District of Columbia, were designated as land-grant institutions between 1968 and 1980 (U.S. Congress, 1993), and 30 Tribal Colleges became land-grant institutions in 1994.

In order to disseminate the results of agricultural research to rural areas in a practical, easily demonstrable way, the Smith-Lever Act of 1914 enabled the 1862 land-grant institutions to operate a system of county extension agents in agriculture and home economics, called the Cooperative Extension Program. Agriculture Experiment Stations had been established under the Hatch Act of 1887. In addition, several sources of funding are available to the 1890 land-grant institutions, including two programs specifically targeted toward the 1890 institutions to compensate for their ineligibility for the first two programs; and special programs for institutional capacity-building and for construction and renovation of facilities for the 1890 institutions (U.S. Congress, 1993; NASULGC, 1998; Bigart, 1997). Most of these funds are administered and coordinated by the U.S. Department of Agriculture. As a result of this evolution, land-grant institutions have come "to encompass a program of on-campus instruction, research, and off-campus extension work" (NASULGC, 1998).

specific to the reservations. The continued lack of available farming credit and adequate irrigation remain serious obstacles to successful agricultural enterprises, and non-Indians farming or ranching on tribally owned lands are a frequent occurrence (Levitan and Miller, 1993). At the same time, agriculture in the United States is changing enormously, with significant impacts on Tribal College reservations. Farms are getting bigger and fewer, the global market for farm products is shifting, and federal farm programs are being scaled back. Although agriculture will remain the mainstay of communities that historically have depended upon it, those ties will change and communities will need to adapt (Barkema and Drabenstott, 1996). Reservation communities will need to rethink their approach to agriculture entirely—traditional uses of the land are not always the best, and communities need to expand their portfolio of options.

Meanwhile, tribal land overall contains nearly six million acres of sustainable commercial timberland, and the potential for income and employment from mining is significant for the few reservations with mineral resources (Levitan and Miller, 1993). Natural resource management for tribes has generally involved the concept of sustainable development—a combination of economic development and the consumption of natural resources in sustainable ways (Davis, 1996). In other words, reservation resources are managed with the realization that they are finite, and the resource potential must be preserved.

The issue of sustainable development has been the focus of many tribes, including some on Tribal College reservations. For example, the Northern Cheyenne Reservation in southeastern Montana, home of Dull Knife Memorial College, is located above the Fort Union Coal Formation. Although the reservation itself is not currently being mined, it has estimated recoverable reserves of 5 billion tons, worth about $400 billion. Because of the poverty level on the reservation, there is significant pressure to open the coal resources for extraction; however, this pressure has been balanced by the risk of degrading or destroying the land through strip mining. Over the last 30 years, therefore, the tribe has been

involved in a series of court and legislative battles to protect the land from coal development (Wilson, 1993).

In reaction to such problems, Tribal Colleges increasingly have become involved in promoting the sustainable development of natural resources on their reservations. For instance, the Menominee Sustainable Development Institute at College of the Menominee Nation in Keshena, Wisconsin works to help preserve the tribe's substantial forest resources while still producing enough income from forest products to enable a strong economy. Toward this end, the Institute has two goals: to research and describe the Menominee model of a sustainable community; and to provide education about sustainable development to a broad audience (Davis, 1996). In addition, Bay Mills Community College of Brimley, Michigan is developing a new curriculum in Sustainable Development, focusing on six primary areas: Environmental Science, Economics, History, Political Systems and Institutions, Community, and Culture and Spirituality.[15]

Meanwhile, Tribal Colleges also can help with instruction and technical assistance, in order to allow tribal members to be a part of agricultural and natural resource development. For example, the Navajo reservation has relatively undeveloped sources of coal, natural gas, and uranium, as well as underutilized land and water resources. In order to develop these resources, "the Navajo Nation needs more Navajo individuals who are formally educated in such fields as engineering, range conservation, hydrology, business management, natural resource development, and rural social and economic development" (Lewis, 1993, p. 24).

Tribal Colleges also can prepare students in fields that are related to the land, such as nutrition, family health, and tourism. For example, Little Big Horn College is helping the Crow Indian Reservation in Montana to take advantage of its proximity to Little Big Horn Battlefield, site of Custer's last stand. The recently established Institute for Microbusiness and Tourism now offers Indian-designed and led tours of the site, in addition to fly-fishing trips and historic tours of various reservation sites (Boyer, 1997). Tribal Colleges can provide targeted coursework and research that addresses these issues, especially with their recent designation as land-grant colleges.

Land-grant status of the colleges

In 1994, 30 Tribal Colleges obtained land-grant status through the Equity in Educational Land-Grant Status Act. The report accompanying the legislation concluded that the Tribal Colleges have similar missions to those of existing land-grant institutions, and that their designation as land-grant colleges could assist them in accomplishing their missions (U.S. Congress, 1993). The Act gives 30 Tribal Colleges (the "1994 land-grant institutions") land-grant status[16] and makes available several types of funding (Bigart, 1997; U.S. Congress, 1993; AIHEC, 1999a):[17]

- Instead of receiving land for endowments, the 1994 institutions are authorized to receive interest income from an endowment fund, to be built from $4.6 million appropriations for each year between 1996 and 2002 (for a total endowment of $32.2 million, if the funds are appropriated).
- Each 1994 institution is authorized to receive $50,000 per year to fund instruction in food and agricultural sciences, as a replacement for Second Morrill Act appropriations. In FY1999, $1,552,000 was appropriated for these equity grants.
- Between Fiscal Years 1996 and 2002, $1.7 million per year has been authorized for competitive grants for buildings, laboratories, and other capital facilities, although the funds have not been appropriated.
- An annual $5 million was authorized for agricultural extension work by the 1994 institutions in cooperation with any 1862 or 1890 land-grant institution. These funds are awarded on a competitive basis. In Fiscal Year 1999, approximately $2 million was appropriated for the extension program.
- Beginning in Fiscal Year 1999 and authorized through 2002, the colleges can compete for applied research grants in agriculture through a research program targeted toward the 1994 institutions.

The 1994 institutions do not receive as much funding as other land-grant institutions. AIHEC estimates that together,

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[15] See the college's website (www.bmcc.org).

[16] Initially, 29 of the colleges were designated as land-grant institutions through the Equity in Educational Land-Grant Status Act; in 1998, Little Priest Tribal College was added after it split from Nebraska Indian Community College, which already had been a land-grant institution.

[17] However, the legislation excludes them from certain types of funding: agricultural experiment stations under the 1887 Hatch Act; agricultural extension work under the 1914 Smith-Lever Act; and college aid appropriations under the Second Morrill Act (Bigart, 1997).

Profile of Development Activities at Turtle Mountain Community College

Like other Tribal Colleges, the original rationale for the creation of Turtle Mountain Community College of Belcourt, North Dakota included increasing the number of tribal members who are capable of contributing to activities that positively impact local community and economic development (TMCC, 1999). Since 1976, the college has provided customized training for the tribe and surrounding community through its Vocational and Technical Education Department. The department was established to train tribal members for employment and offers 10 instructional degree and/or certificate programs, in such fields as Early Childhood/Day Care, Construction Technology, Welding, Medical Lab Technician, Fish/Wildlife Management, Business Office Technology, and Entrepreneurship/Marketing. In 1997-98, 473 students were enrolled in any one of the 10 degree/certificate programs. Of those students, 77 percent have completed their programs, and 88 percent of program completers are currently employed. Organizations such as Uniband Corporation, Turtle Mountain Manufacturing Corporation, and the Belcourt School District have taken advantage of the college's customized training.

In addition, the Center for New Growth and Economic Development was created within the college to play an integral role in the development activities of the surrounding communities. The center has five major goals:

- Compilation of community data and information
- Collaboration with tribal and community leaders
- Structured training opportunities for the next generation of tribal leaders
- Conducting research relevant to tribal and community needs
- Maintenance of a centralized repository of demographic data and resource materials

The center's work strengthens Turtle Mountain Community College's capacity to address local needs. For example, the center recently brought together tribal and county leaders to discuss long-range planning, resulting in an application for Empowerment Zone and Enterprise Community (EZ/EC) status. The center obtained funding from the Administration for Native Americans to develop a data collection and management unit that will be available to all community members. The center also manages and administers a scholarship program designed to help future tribal entrepreneurs create businesses on or near the reservation; provides access to the Internet for students; and sponsors a series of workshops presented by local professionals on business start-up issues.

The Agriculture/Natural Resource Initiative also exists within the college to develop an environmental program for the Turtle Mountain Chippewa Reservation by focusing on the effective use of agricultural, forest, and residential lands. Toward this end, the initiative will involve research into various reservation species, efforts to bring all relevant programs of the U.S. Department of Agriculture to the reservation, and the development of agricultural programs of study. Agricultural-related training in such areas as nutrition education, diabetes information, and Global Positioning System/Geographic Information System (GIS/GPS) training is already being provided, and the college will eventually offer certificates and degrees through the Initiative.

the 30 land-grant Tribal Colleges receive approximately the same funding through land-grant-related appropriations that one state land-grant university does (AIHEC, 1999). In addition, several of the land-grant provisions have not been funded at their authorized levels, or at all.

Under the land-grant legislation, two broad programs are fundamental to the work of the Tribal Colleges: equity grants and extension work. The purpose of the equity grants program is to strengthen instructional programs in the food and agricultural sciences at the 1994 land-grant institutions.

Under the program, appropriated funds are divided equally among the 30 land-grant colleges upon approval of each institution's application for a grant, which must include a plan of work related to the institution's long-term goals. The equity grants may support projects related to strengthening academic programs in one or more of the following areas: curricula design and instructional materials development; faculty development and preparation for teaching; instruction delivery systems; student experiential learning; equipment and instrumentation for teaching; and student recruitment and retention (CSREES, 1999b).

The following project summaries exemplify some of the work Tribal Colleges are doing as a result of FY 1998 equity grants (CSREES, 1998b):

- Fort Belknap College in Harlem, Montana has used its equity grants over three years to develop a Global Positioning System/Geographic Information System (GPS/GIS) program. To this end, the college has purchased GPS/GIS equipment and software, established a workstation, hired a coordinator, and trained students, faculty, and community members in GPS/GIS use. The program has been used to document the location of cultural, historical, and ethnobotanical sites on the Fort Belknap Reservation. In the coming year, the technology will be used in four areas of critical need: tribal bison range inventory; monitoring of black-footed ferret; spring and wetlands inventory; and tribal farm and ranch inventory.
- Cankdeska Cikana Community College of Fort Totten, North Dakota is developing curricula and materials for a new program in Food Science and new courses for students with an interest in Food Science careers as part of Phase III of its Food Science and Agricultural Services Project. The curricula and materials include state of the art methods for food preparation as well as traditional Dakota recipes and preparation methods. Students in the program complete field experiences and seek employment in hospitals, schools, hotels, and other institutions offering employment in the Food Science area.
- Leech Lake Tribal College of Cass Lake, Minnesota is using the equity grant funding to improve its Environmental Science program. In previous years, funds were used to acquire instructional equipment and hire a new full-time instructor in Biology/Chemistry. The college also is adding a full-time faculty member with a forestry orientation in order to expand course offerings in the program.
- The Institute of American Indian Arts (IAIA) of Sante Fe, New Mexico is continuing to advance its resource education program to promote American Indian food, fiber, and natural resource systems. The project is being moved into the instructional curriculum with the introduction of several new courses and integration of courses and other efforts into an interdisciplinary Arts & Material Culture program. In addition, the program's educational outreach infrastructure is being developed through computer and video information technologies.

Extension programs are conducted through cooperative agreements with other land-grant institutions. Proposals are submitted for competitive consideration. The scope of projects eligible for support include the following areas: agriculture; community resource and economic development; family development and resource management; 4-H and youth development; leadership and volunteer development; natural resources and environmental management; and nutrition, diet, and health (CSREES, 1998a).

Examples of projects for FY 1998 under the extension program include the following (CSREES, 1999a):

- Blackfeet Community College in Browning, Montana, in cooperation with Montana State University and the Blackfeet Tribe, is focusing its extension work efforts on native plant horticulture on the Blackfeet Reservation. In addition, the Tribal College extension agent is assisting in developing a training program in ecosystem recovery and native plant horticulture, and is coordinating the development of college facilities to support research and training.
- Fond du Lac Tribal and Community College in Cloquet, Minnesota, along with the University of Minnesota Extension Service, is developing and distributing an environmental analysis of the physical and biotic quality of a major river ecosystem and monitoring the quality of ground and surface waters, in order to promote the sustainable use of water resources on the reservation.
- Southwestern Indian Polytechnic Institute (SIPI) in Albuquerque, New Mexico, in collaboration with New Mexico State University Cooperative Extension Service, is

developing and implementing a Family Extension and Education Program. The program provides training in early childhood development, family care, and youth development in order to help families become healthy, productive, and financially secure members of the community. The program has established a Family Development and Resource Center on the campus, and plans for expansion include an early childhood development center.

- The Agricultural Division at Fort Berthold Community College in New Town, North Dakota is implementing an Agricultural Marketing and Management System for Beef Cattle and Bison. The marketing phase focuses on the establishment of bison production and beef feeder cooperatives with innovative marketing concepts, while the management phase provides technical and managerial oversight for feedlot operations.

Although the colleges currently offer many courses related to agriculture and natural resource development, land-grant funding will allow them to establish broader curricula in these areas. This, in turn, will help enable local communities to develop the land and natural resources of their reservations.

IV. CONCLUSIONS AND IMPLICATIONS

"In the end, the issue is empowerment."
— Paul Boyer, 1989

Sovereign Indian nations are composed of four overlapping attributes: a secure land base, a functioning economy, self-government, and cultural vitality. All attributes must be maintained and developed for tribes' continued autonomy (NCSL, 1998). Although the policy of self-determination is making economic development on Indian reservations possible, it does not guarantee success (Cornell and Kalt, 1991). Tribal Colleges contribute to strengthening all four of these aspects—by encouraging land development, economic growth, community leadership, and the preservation of tribal traditions.

The success of recent initiatives, particularly the encouragement of entrepreneurs and small businesses, help disprove the long-held assumption that economic development is incompatible with tribal cultures (Boyer, 1997). In fact, the integration of cultural values is essential for the success of economic development efforts. The Rural Community College Initiative found that Tribal Colleges are good examples of the kind of community development that is needed:

> *Giving close attention to the incorporation of Indian values and local traditions . . . in entrepreneurial training, they are building economic capacity from community strengths rather than deficiencies. They promote economic self-determination without destroying traditional culture (Eller et al., 1998, p. 14).*

Nevertheless, it is important to recognize that the early signs of economic progress and the movement toward self-determination should not mean an end to outside support. Significant barriers remain to economic development on reservations, and building skills and technical expertise and encouraging entrepreneurship will not be enough if more jobs do not become available. A broad-based, diversified economy—including small business, manufacturing, agriculture, and more—is necessary to ensure long-term success (Boyer, 1997).

Given these considerations, there are several steps policymakers and other leaders can take to support and advance Tribal Colleges' efforts in community development:

- Land continues to be one of the greatest resources of reservation communities. Through targeted education and training and information dissemination, Tribal Colleges can help tribes become self-sufficient in the management of their land and natural resources. To bolster these endeavors, federal policymakers must appropriate funds under the land-grant legislation at the authorized levels. At the same time, the authorized levels should be reexamined to ensure that they allow for an equitable distribution of resources.
- The integration of Tribal Colleges' development efforts with broader initiatives, such as the Tribal Business Information Centers, are essential to building a foundation for small business growth and entrepreneurship on reservations. Policymakers must continue to fund such initiatives, recognizing the success they have had thus far with only limited resources.
- To assist in creating sustainable reservation communities, the Tribal Colleges must collaborate with a range of partners in regional development. The colleges already have created ties to each other through such avenues as the Montana Tribal Business Information Network, which links business centers at the Tribal Colleges in Montana. Cooperative relationships with other land-grant institutions and institutions that serve large

numbers of students from disadvantaged backgrounds will be especially important in the future.

- Similarly, healthy tribal economies mean substantial benefits for the economies of the states in which they are located. Thus, state policymakers must look to the Tribal Colleges as partners in economic development, with broad benefits to the state as a whole. Welfare reform is just one example of cooperation in this area.
- In building upon all of these partnerships, reservation communities will require the resources to develop infrastructure capacities at the most basic levels, including financial institutions, transportation networks, and communications technology.
- Ultimately, leaders and policymakers must be aware of Tribal Colleges as a community development resource. Past government economic development initiatives on reservations frequently failed because they did not recognize the underlying structures of the local economy, including the dire need for infrastructure and the importance of microenterprise. Tribal Colleges, as community institutions, can help the sponsors of future development efforts understand such characteristics in order to provide a better chance of success.

Gaps in our knowledge of the role of Tribal Colleges in economic development still exist, and more research into this area is warranted. It is evident that the Tribal Colleges are at different stages in the process of assisting and sustaining local community development. Some are more advanced, have more resources, or have a broader range of efforts in these areas than others. Yet the colleges learn from each other, and frequently form strategic partnerships that cross reservations and tribal cultures. Clearly they will all play important roles in the future development of American Indian reservation communities, especially in establishing the foundation for future growth through skills development, technical assistance, and other efforts.

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Addendum

Figure Seven on page 16 of this report seeks to match Tribal College curricula with local needs. Tobacco sales do not represent a major industry in the Bay Mills community in Michigan. A more accurate match for Bay Mills Community College is reflected below.

The participation rates included in Figure Eight on page 17 of this report are based on reservation population figures for the chartering tribes of the Tribal Colleges in those states. While the Bay Mills Tribe of Michigan and the Lummi Tribe of Washington founded the only Tribal Colleges in their respective states, these schools directly serve and are responsible to multiple reservation populations in their areas. Therefore, it is important to consider the total reservation population for each state and/or service area when calculating participation rates, as the following table illustrates for 1995.

Name of College	Selected Major Industries	Examples of Programs Offered (1998)
Bay Mills Community College (MI)	Local government; tribal businesses	Tribal Business Management; Natural Resources Management

Source: Tiller 1996, AIHEC, 1998, Bay Mills Community College, 1999

State	Total reservation population ages 16 to 64, American Indian residents	Fall enrollment American Indian students	Enrollment as % of population
Michigan	14,154	261	2%
Idaho Oregon Washington	54,284	1,189	2%

Source: BIA, 1995 (population figures); NCES 1995b (enrollment figures)

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